



Getting Started with ArcGIS Online Part 2

March 16, 2021

Wilma.Robertson@its.idaho.gov

AGENDA

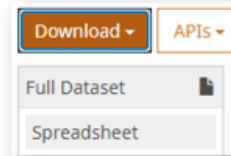
1	Adding Data from Tables, including Google Sheets	3
2	Making Pop-Ups Pop	8
3	Using Arcade Expressions	14
4	Symbolizing Quantitative Data	19
5	Enrichment	20
6	Hosted Joins	21
7	Managing Surveys	26
8	Basic Analyses, including Routing	29
9	App Templates	33

1. Adding Data From Tables, including Google Sheets

- 1 Visit <https://www.arcgis.com> and sign into your ArcGIS Online account

In the first exercise we will map the locations of Idaho Department of Transportation Offices.

- 2 Open a new Browser tab and visit <https://gis-idaho.hub.arcgis.com/datasets/IPLAN::district-office>
- 3 Download the locations as a spreadsheet. Click on Download, and then on Spreadsheet
- 4 Save the spreadsheet to your computer



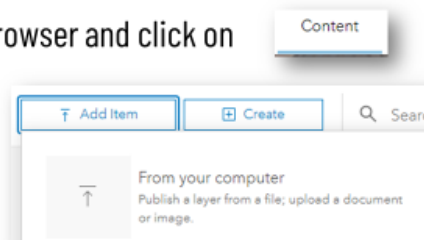
<https://gis-idaho.hub.arcgis.com/datasets/IPLAN::district-office>

1. Adding Data From Tables, including Google Sheets

X	Y	DistrictID	AgencyCode	StAddress	StCity	StState	StZipcode
-116.7944	47.7441	1	ITO	800 W. PRAIRIE	COEUR d'ALENE	ID	83815
-116.994	46.4288	2	ITO	2600 FRONTAGE RD	LEWISTON	ID	83501
-116.2836	43.6512	3	ITO	8150 CHINDEN BLVD	BOISE	ID	83714
-114.4125	42.9386	4	ITO	276 S. DATE ST	SHOSHONE	ID	83352
-112.3884	42.8282	5	ITO	5151 S 5TH	POCATELLO	ID	83204
-111.814	43.6574	6	ITO	206 N. YELLOWSTONE HWY	RIGBY	ID	83442
-116.2305	43.635	8	ITO	3311 W STATE ST	BOISE	ID	83703
-114.4407	42.5385	4	ITO	826 EASTLAND DR	TWIN FALLS	ID	83303
-112.0596	43.5048	6	ITO	1540 FDOT DR	IDAHO FALLS	ID	83402

Which Attributes should we use to assign locations?

- 5 Go to back to your ArcGIS Online tab in your browser and click on
- 6 Click on Add Item > From your computer



1. Adding Data From Tables, including Google Sheets

- 7 Choose the spreadsheet you just downloaded, edit the Title and add some Tags.
- 8 Choose to Publish this file as a hosted layer



Add an item from your computer

File:

Title:

Categories:
+ Assign Category -

Tags:

☒ Publish this file as a hosted layer.

Locate features by:
☒ Coordinates ☐ Addresses or Places ☐ None, add as table

Review the field types and location fields. Click on a cell to change it.

Field Name	Field Type	Location Fields
X	Double	Longitude
Y	Double	Latitude
OBJECTID	Integer	Not used

Time Zone:

1. Adding Data From Tables, including Google Sheets

- 9 Click on Add Item

Locate features by:
☒ Coordinates ☐ Addresses or Places ☐ None, add as table

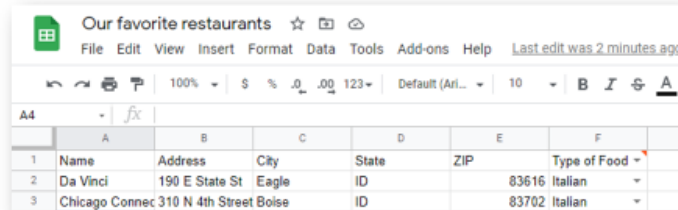
Review the field types and location fields. Click on a cell to change it.

Field Name	Field Type	Location Fields
X	Double	Longitude
Y	Double	Latitude
OBJECTID	Integer	Not used

Time Zone:

1. Adding Data From Tables, including Google Sheets

- 10 Open a new browser tab and go to https://docs.google.com/spreadsheets/d/1UsCu0-gjr8_puwA_0sSULDBuG-N32gYc6SdtWXYGa3k/edit?usp=sharing



	A	B	C	D	E	F
	Name	Address	City	State	ZIP	Type of Food
1	Da Vinci	190 E State St	Eagle	ID	83616	Italian
2	Chicago Connec	310 N 4th Street	Boise	ID	83702	Italian

- 11 Add the information for your favorite 1-2 restaurants

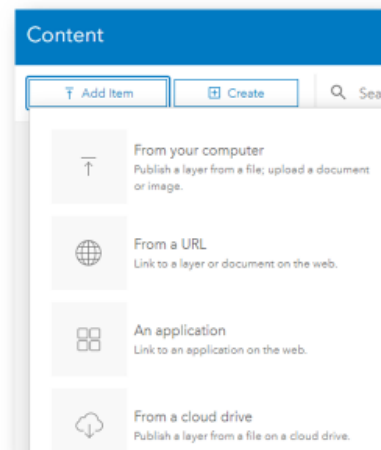
https://docs.google.com/spreadsheets/d/1UsCu0-gjr8_puwA_0sSULDBuG-N32gYc6SdtWXYGa3k/edit?usp=sharing

1. Adding Data From Tables, including Google Sheets

demo

- 12 Inside ArcGIS Online make sure you are on the Content Tab, and the click Add Item > From Cloud Drive

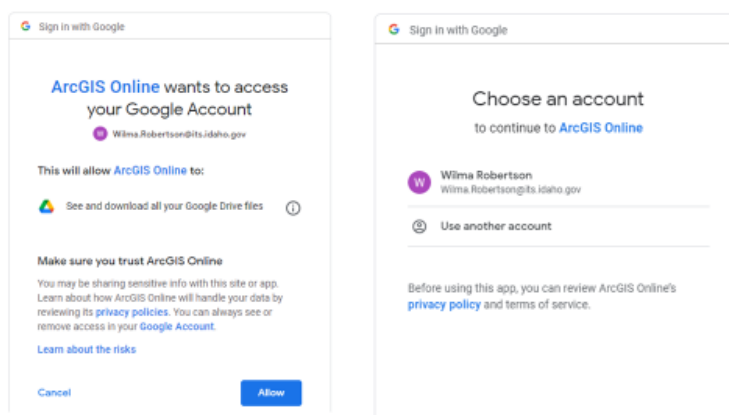
Add item from cloud drive



<https://support.esri.com/en/technical-article/000022290>

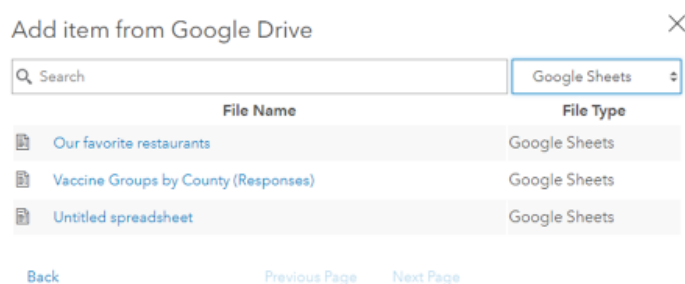
1. Adding Data From Tables, including Google Sheets

13 Sign into your Google Account and click Allow



1. Adding Data From Tables, including Google Sheets

14 Visit <https://www.arcgis.com> and sign into your ArcGIS Online account



1. Adding Data From Tables, including Google Sheets

Part 1: Maps

- 15** Title, tags and summary as well as how you would like to geocode this data

Two screenshots of the 'Add item from Google Drive' dialog box. The left screenshot shows the 'Title' field with 'Our favorite restaurants', 'Tags' with 'Food' and 'Restaurants', 'Summary' with 'Our favorite Restaurants', and 'Categories' with 'Assign Category'. The right screenshot shows the 'Location Fields' table with columns 'Field Name' and 'Location Fields'. The table has rows for Address, City, Name, State, Type_of_food, and ZIP, with corresponding location fields like 'Address or Place', 'City', 'Not used', 'State', 'Not used', and 'ZIP'. A 'Time Zone' dropdown is set to '(UTC) Coordinated Universal Time'.

1. Adding Data From Tables, including Google Sheets

Part 1: Maps

- 16** Go to the Overview page of the new "Our favorite restaurants" layer and click on "Update Data" >

Overwrite from Google Drive

Overwrite all features in 'Our favorite restaurants' with updated google sheets from Google Drive. All field names and layers in the cloud drive file must be the same as the original file.

Note: Once you sign in, the feature layer will be overwritten with the contents of the updated file in your cloud drive.

Sign in with Google Drive Cancel

Open in Map Viewer

Open in Scene Viewer

Open in ArcGIS Desktop

Publish

Create View Layer

Export Data

Update Data

Share

Metadata

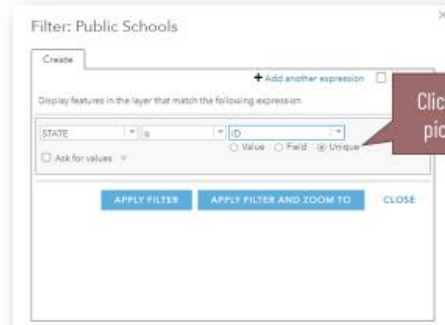
2. Making Pop-Ups Pop

- 1 Click on **Map** along the top of the screen
- 2 Click on **Add > Browse Living Atlas Layers**



Since this dataset covers the entire US, let's start with setting up a filter so that we can only see the schools in Idaho

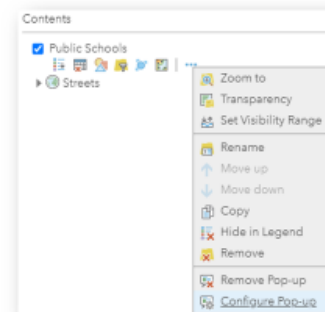
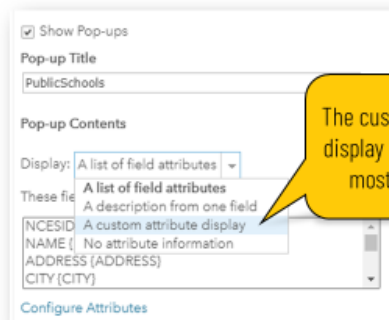
- 3 Click on **Filter**
- 4 Set a filter to only show schools in Idaho



2. Making your Pop-Ups Pop!

Part 1: Maps

- 5 Open the attribute table to see what attributes are available to add to the pop-up and analyze.
- 6 Close the table and click on **Configure Pop-Up**



CONFIGURE

2. Making your Pop-Ups Pop!

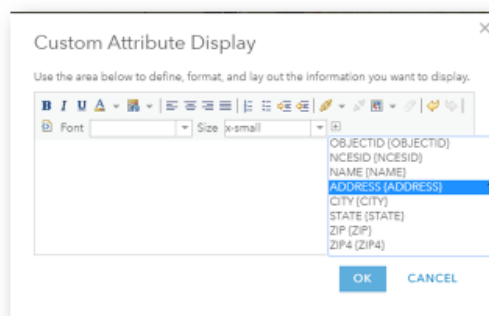
- 7** Delete the content of the Pop-Up title, then click on the + to add the NAME of the school



- 8** Click on Custom Attribute Display

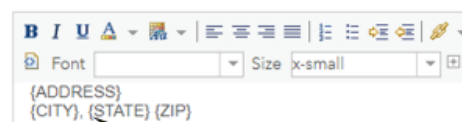
- 9** Click on **CONFIGURE**

2. Making your Pop-Ups Pop!



Click on the + and then on ADDRESS {ADDRESS}

- 10** Keep using the + to add the CITY, STATE and ZIP on the next line:



Note the comma between {CITY} and {STATE}

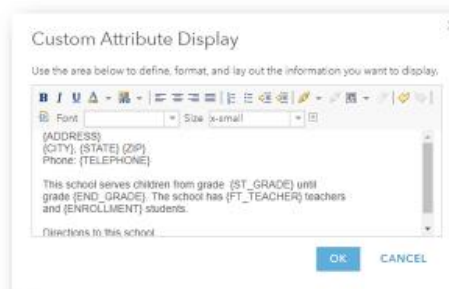
2. Making your Pop-Ups Pop!

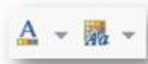
- 11 Click **OK** and then **OK** again
- 12 Click on a school to see the result to see the new Pop-Up
- 13 Continue using the same techniques until your Pop-Up looks like this:



2. Making your Pop-Ups Pop!

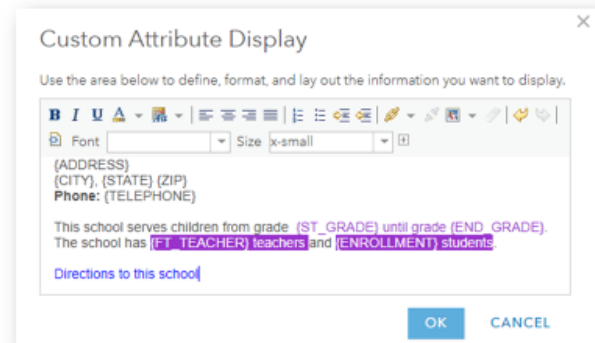
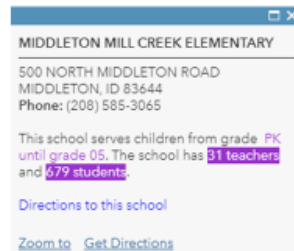
- 14 Here is how the Pop-Up is formatted:



- 15 Next, let's highlight a couple of items. Select the word "Phone:" and make it a bold font.
- 16 Select "{ST_GRADE} until grade {END_GRADE}". Click on  to format font and background colors

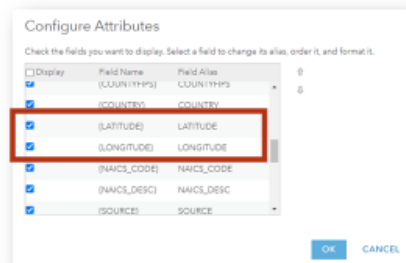
2. Making your Pop-Ups Pop!

- 17 Change the "Directions to this school into a blue font"
- 18 Click OK twice and then click on a school to see the new Pop-Up



2. Making your Pop-Ups Pop!

- 19 Next, let's add in directions to the schools. We will use Google Maps for that, something that most people can access via their browser or on their mobile phone.
- 20 When you go to Configure Pop-Up > Configure Attributes you will see that the data comes with a Longitude and Latitude:



For information about how to format URLs for Google Maps see <https://developers.google.com/maps/documentation/urls/get-started>

- 21 The URL we will use is:
<https://www.google.com/maps/dir/?api=1&destination={LATITUDE},{LONGITUDE}>

The URL we will use is: <https://www.google.com/maps/dir/?api=1&destination={LATITUDE},{LONGITUDE}>

2. Making your Pop-Ups Pop!

- 22 Copy the URL from the previous slide
- 23 On your map open up the Pop-Up again

Custom Attribute Display

Use the area below to define, format, and lay out the information you want to display.

Font: [B I U] Size: x-small

(ADDRESS)
(CITY), (STATE) (ZIP)
Phone: (TELEPHONE)

This school serves children from grade {ST_GRADE}
until grade {ENRQ}. The school has {T1_TEACHER} teachers and {ENRQ} students.

Directions to this school

Link

Text
Directions to this school

URL
https://maps.google.com/maps/dir/?api=1&destination={LATITUDE},{LONGITUDE}

Update

24 Select "Directions to this school"

25 Paste the URL you just copied in this box

26 Click Update

2. Making your Pop-Ups Pop!

- 27 Click OK twice, and then try out the new "Directions to this school" link.



Consult
<https://developers.google.com/maps/documentation/urls/get-started> to learn how to route to an address rather than lat/long

2. Making your Pop-Ups Pop!

☒ Show Pop-ups

Pop-up Title
[NAME]

Pop-up Contents

Display: A custom attribute display

CONFIGURE

Configure Attributes

Attribute Expressions

Adding expressions allows you to create new information from existing fields for use in pop-ups.

ADD

No expressions. Click 'Add' to add one.

Pop-up Media

Display images and charts in the pop-up.

ADD

ADD

Image

Pie Chart

Bar Chart

Column Chart

Line Chart

28 Go back to Configure Pop-Up and under Pop-Up Media click on Add > Pie Chart

29 Configure the Pie chart as shown on the right, showing the ENROLLMENT and FT_TEACHER

- 30** Click OK twice
- 31** Try out the new Pop-Up
- 32** Save your map and leave it open

Configure Pie Chart

Specify the title, caption and fields to chart.

Title:
Students and Teachers

Caption:
Students and Teachers

Chart Fields

Field Alias	Field Name
<input type="checkbox"/> LATITUDE	[LATITUDE]
<input type="checkbox"/> LONGITUDE	[LONGITUDE]
<input checked="" type="checkbox"/> ENROLLMENT	[ENROLLMENT]
<input checked="" type="checkbox"/> FT_TEACHER	[FT_TEACHER]

Normalize by: None

OK **CANCEL**

3. Using Arcade Expressions

- In the first part of this exercise, we will add the number of students to teacher ratio. Note that the table includes columns for the enrollment and full-time teachers
- The equation **ENROLLMENT/FT_TEACHER** should give us this ratio

ENROLLMENT	ST_GRADE	END_GRADE	DISTRICTID	FT_TEACHER
603	KG	05	1603240	27
513	09	12	1601050	30
729	07	09	1600360	42
361	07	12	1600007	19

3. Using Arcade Expressions

- 1 In your - still open - web map click on the ... > Configure Pop-Up
- 2 Click on ADD under Attribute Expressions.

3 Click on Edit and then change the title to "Student to Teacher Ratio"

4 Click on "Globals"

5 Click on the > next to \$feature

Attribute Expressions
Adding expressions allows you to create new information from existing fields for use in pop-ups.
ADD
No expressions. Click 'Add' to add one.

3. Using Arcade Expressions

7 Type a "/"

9 Click on Test

6 Click on \$feature.ENROLLMENT

8 Click on \$feature.FT_TEACHER

10 Verify that it looks good

11 Click OK

3. Using Arcade Expressions

- 12 Click on **CONFIGURE**
- 13 Add the following line to the Pop-Up

The screenshot shows the 'Custom Attribute Display' dialog box. It contains a text area with the following text: 'This school serves children from grade {ST_GRADE} until grade {END_GRADE}. The school has {FT_TEACHER} teachers and {ENROLLMENT} students. The student to teacher ratio is {Student to Teacher Ratio [expression]}'.

Annotations:

- 14 Type "The student to teacher ratio is to 1"
- 15 Put your cursor here
- 16 Click on the +
- 17 Click on "Student to Teacher Ratio"
- 18 Click OK and try out your Pop-Up

3. Using Arcade Expressions

- 19 Note how the ratio is given with two decimal points. Let's change that to a whole number. Click again on "Configure Pop-Up"
- 20 Click on **Configure Attributes**
- 21 Scroll down to Student to Teach Ratio
- 22 Change the number of decimal places
- 23 Click OK

The screenshot shows the 'Configure Attributes' dialog box. It has a table with the following columns: 'Field Name', 'Field Alias', and 'Attribute Type'. The table contains the following rows:

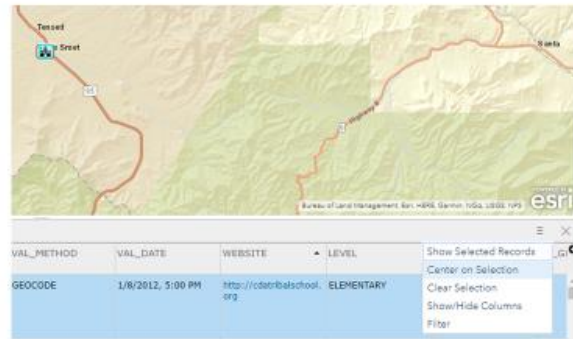
Field Name	Field Alias	Attribute Type
{ST_GRADE}	ST_GRADE	Text
{END_GRADE}	END_GRADE	Text
{DISTRICTID}	DISTRICTID	Text
{FT_TEACHER}	FT_TEACHER	Text
{SHELTER_ID}	SHELTER_ID	Text
{expression/expr0}	Student to Teacher Ratio	Number

The 'Format' dropdown is set to '0 decimal places'. The 'Use 1000 Separator' checkbox is checked.

Below the dialog box, a map pop-up for 'HIGHLANDS ELEMENTARY SCHOOL' is shown. It displays the school's address, phone number, and the student to teacher ratio: 'The student to teacher ratio is 18.35 to 1'.

3. Using Arcade Expressions

- 24 Finally, we will add the school website. Open the attribute table and look at the WEBSITE attribute.
- 25 Note that many schools are lacking the web address information
- 26 Sort the WEBSITE in ascending order, click on the first row to select it
- 27 In the drop-down in the right choose "Center on Selection"
- 28 We will use Arcade to only display website information where a website is actually listed

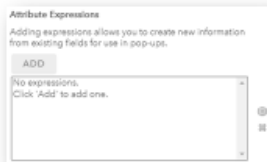


3. Using Arcade Expressions

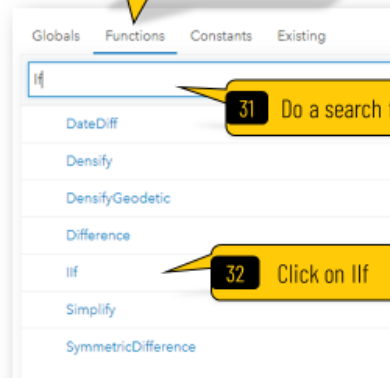
This is what we want to do:

- If the Website is "NOT AVAILABLE" then don't even mention it in the Pop-Up
- If there is a website, then add "Website:"

- 29 Click on Configure Pop-Up and click on Add, to add a new expression



30 Click on Functions



31 Do a search for "If"

32 Click on If

3. Using Arcade Expressions

Expression

```
1 IIf(conditionalExpression, valueIfTrue, valueIfFalse)
```

If the website is
NOT AVAILABLE..

Then show
nothing, i.e., "..."

.. Otherwise show
"Website is name-of-
website"

33 Click on Globals

Globals Functions Constants Existing

\$feature

34 Click on \$feature

3. Using Arcade Expressions

38 Edit the title

Website PopUp Info

Expression

```
1 var nowebite = ''
2 var website = Concatenate('Website: ', $feature.WEBSITE)
3
4 IIf($feature.WEBSITE=='NOT AVAILABLE', nowebite, website)
5
6
7
```

Test

39 Click on Test

35 Place your mouse here
and then click on
\$feature.WEBSITE

36 Finish the rest of this
statement. Not that "="
is an assignment, "==" is
a comparison

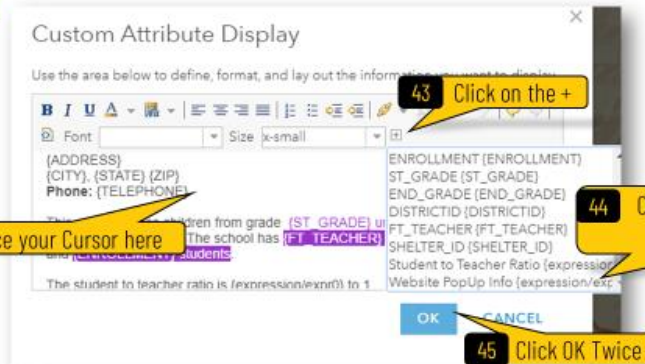
40 Click OK.

3. Using Arcade Expressions

41 Next, we need to add this website information to the Pop-Up. Click on

CONFIGURE

42 Place your Cursor here



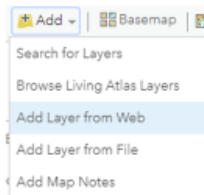
43 Click on the +

44 Choose the new expression we just created

45 Click OK Twice

46 Try out the new Pop-Up. Try a school with, and a school without a website. Leave the map open for the next exercise

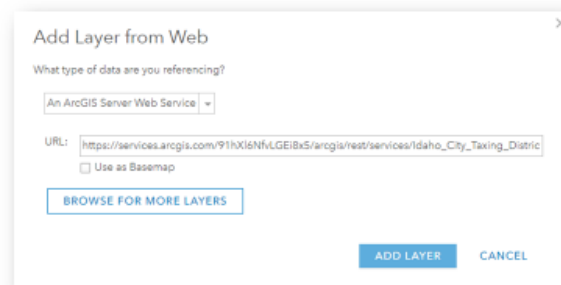
4. Symbolizing Quantitative Data



1 On the web map left open from the previous exercise click on Add > from Web. Add the following URL:
https://services1.arcgis.com/CNPdEkvnGI65jCX8/arcgis/rest/services/Counties_for_AGOL2_Class/FeatureServer



2 Click Add Layer

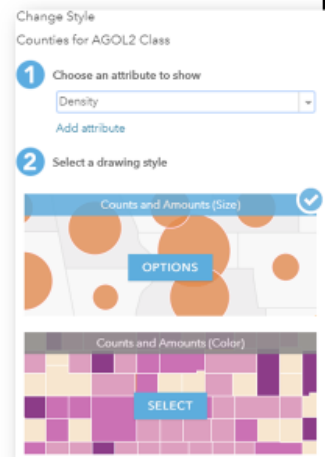
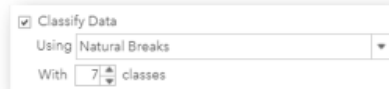
3 Change the base layer if you want and save your map



https://services1.arcgis.com/CNPdEkvnGI65jCX8/arcgis/rest/services/Counties_for_AGOL2_Class/FeatureServer

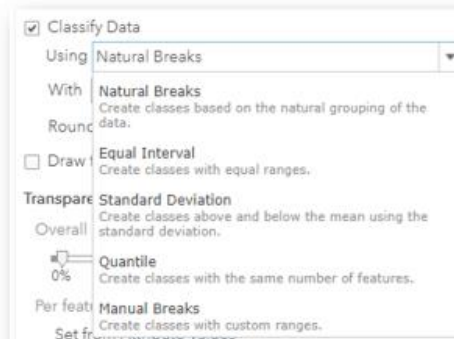
4. Symbolizing Quantitative Data

- 4 While waiting for the analysis turn the Public School layer off
- 5 Click on  for the Counties layer you just added
- 6 Choose to show Density, and then click Select on the option to display Counts and Amounts (Color)
- 7 Click on  and choose a light to dark green color ramp
- 8 Click on Classify Data. Pick 7 classes.



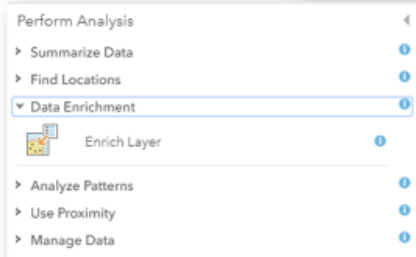
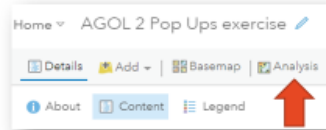
4. Symbolizing Quantitative Data

- 9 Compare the Different Classification Methods



5. Using Enrichment to add Population Data

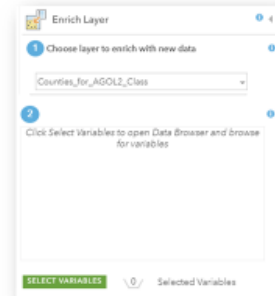
1 Click on Analysis



2 Expand the Data Enrichment tab and then click on Enrich Layer

3 Use the Counties_for_AGOL2_Class Layer

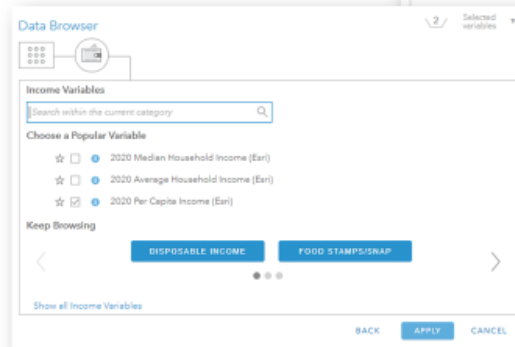
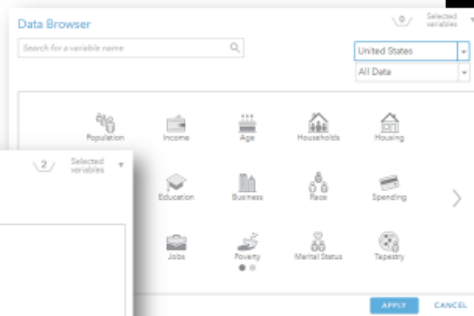
4 Click on Select Variables



5. Using Enrichment to add Population Data

5 Note the huge collection of data you can choose from. Click on Income and the pick the 2020 Per Capita Income (Esri).

6 Click Apply



5. Using Enrichment to add Population Data

The screenshot shows the 'Define areas to enrich' dialog box. It has two main sections: '3 Define areas to enrich' and '4 Result layer name'. In section 3, there is a 'Line distance' dropdown set to '1 Miles', a checkbox for 'Return result as bounding areas' which is unchecked, and a 'RUN ANALYSIS' button. In section 4, the 'Result layer name' is 'Enriched Idaho_City_Taxing_Districts - District_CO', and the 'Save result in' dropdown is set to 'ITS Class - Getting Started wi'. A callout box labeled '7' points to the 'Result layer name' field with the text 'Pick a name you like (the default is fine for this exercise)'. Another callout box labeled '8' points to the 'Return result as bounding areas' checkbox with the text 'Be aware of this one! Uncheck for now'. A third callout box labeled '9' points to the 'RUN ANALYSIS' button with the text 'Click on RUN ANALYSIS'. To the right of the dialog box is a 'Credit Usage Report' window showing 'Total records: 44' and 'Credits required: 0:44'.

6. Hosted Joins

- 1 Keep your web map open
- 2 Open a new browser tab and visit <https://survey123.arcgis.com/share/2bcd0ad589f0420d9b1eb1f8f8949025>
- 3 This simple demo surveys allows you to keep track of the number of vaccinations for each County in Idaho (don't submit any surveys yet)
- 4 Keep the tab in your browser open

The screenshot shows a survey form titled 'Vaccinations in Idaho'. It has a green header bar. The form contains the following fields: 'Todays Date' with a date picker set to '3/16/2021', 'County' with a dropdown menu, 'Received one of two doses' with a radio button, and 'Completely Vaccinated' with a radio button. At the bottom right is a green 'Submit' button.

6. Hosted Joins

- 1 Keep your web map open
- 2 Open a new browser tab and visit <https://survey123.arcgis.com/share/2bcd0ad589f0420d9b1eb1f8f8949025>
- 3 This simple demo surveys allows you to keep track of the number of vaccinations for each County in Idaho (don't submit any surveys yet)
- 4 Keep the tab in your browser open

<https://survey123.arcgis.com/share/2bcd0ad589f0420d9b1eb1f8f8949025>


6. Hosted Joins

- 5 Continue working with the same map
- 6 Click on Add > Layer from Web and add the following layer: https://services1.arcgis.com/CNPdEkvnGI65jCX8/arcgis/rest/services/service_8a0b5292c17342edb422ffb4d9f388a5/FeatureServer
- 7 Symbolize the vaccinations in this layer based on the "Completely Vaccinated" attribute
- 8 Use the Counts and Amounts, and pick a color symbol you like

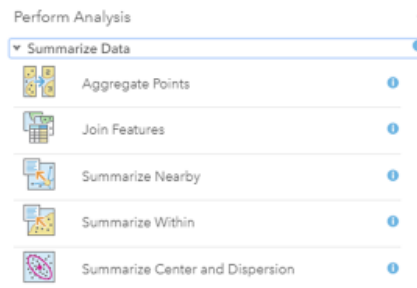
https://services1.arcgis.com/CNPdEkvnGI65jCX8/arcgis/rest/services/service_8a0b5292c17342edb422ffb4d9f388a5/FeatureServer

6. Hosted Joins

9 Instead of showing the number of vaccinations as points, we will join this data to the county polygon layer, and then symbolize that based on % of population vaccinated

10 Click on  Analysis

11 Expand the Summarize Data and choose Join Features



6. Hosted Joins



6. Hosted Joins

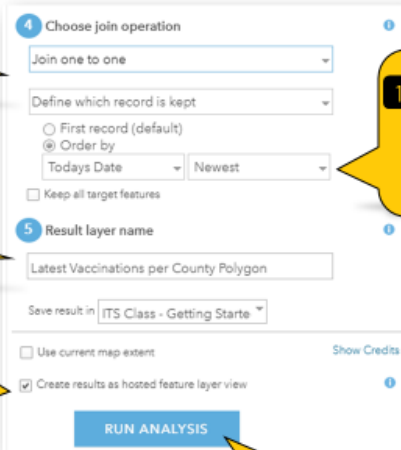
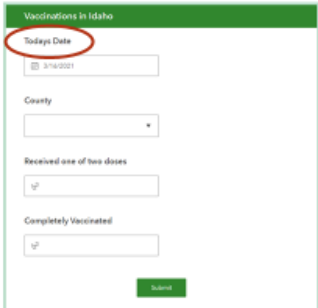
17 Choose a one-to-one join

18 Define which record is kept. Because we only want to show the newest data, click on order by "Today's Date" so that the Newest is join


19 Give it a name, decide where to store

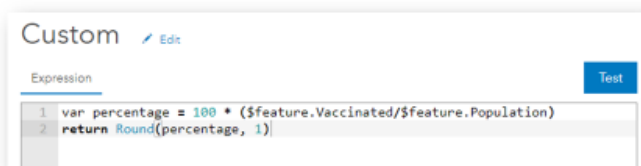
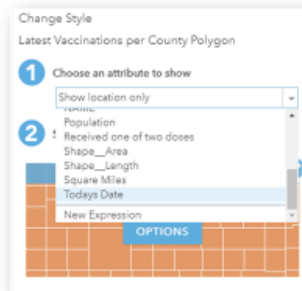
20 To make this join live check Create results as hosted feature layer view. This will ensure that the data updates as new surveys are being submitted!

21 Run the Analysis

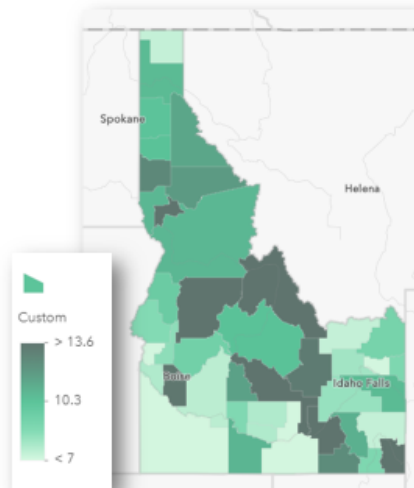
6. Hosted Joins

- 22** Turn off all layers on your map except for the hosted join you just created. Next, we will add a field, and calculate the % of people vaccinated
- 23** Click on Symbolize 
- 24** Choose New Expression – since we still need to calculate the percentages
- 25** Construct the following expression:
- 26** Click OK



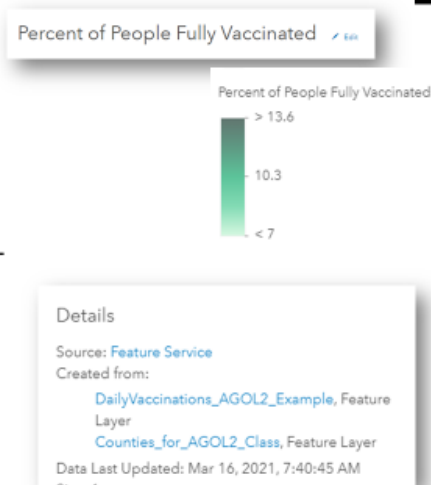
6. Hosted Joins

- 27 Choose Counts and Amounts, click a color ramp you like and symbolize your map
- 28 Click OK
- 29 Since "Custom" in the legend does not see that informative, click on the pencil to edit the custom expression:

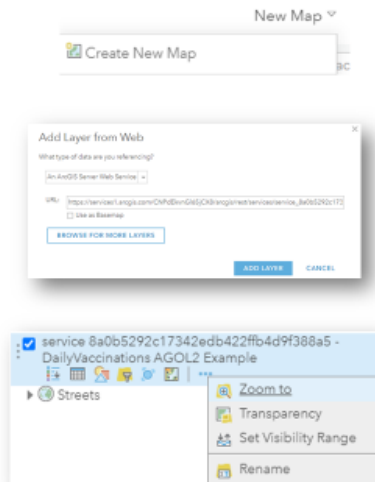


6. Hosted Joins

- 30 Change the title to something more meaningful:
- 31 Click OK and then Done
- 32 Save your map
- 33 Click on the ... next to the hosted join you just created and open the Details page
- 34 Scroll down and notice the following on the right-hand side. It shows you that this Feature Service is created from two different layers
- 35 Submit a number of surveys and test out the hosted join



7. Managing Surveys

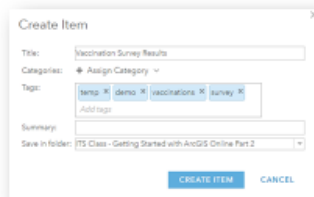


- 1 Save your current map and then click on new map in the top right-hand corner
- 2 Click on Add > Add Layer From web and paste in the following URL (those are the survey results)
https://services1.arcgis.com/CNPdEkvnGI65jCX8/arcgis/rest/services/service_8a0b5292c17342edb422ffb4d9f388a5/FeatureServer
- 3 Rename the layer to "Vaccination Survey Results"

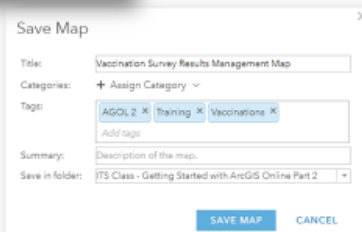
https://services1.arcgis.com/CNPdEkvnGI65jCX8/arcgis/rest/services/service_8a0b5292c17342edb422ffb4d9f388a5/FeatureServer

7. Managing Surveys

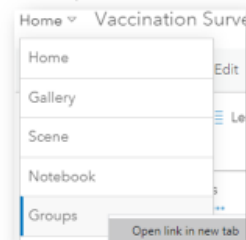
- 4 Save the layer you just renamed



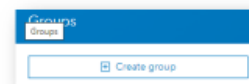
- 5 Save your map



- 6 Click on Home in the top left-hand corner and open Groups in a new tab



- 7 Create a new Group



7. Managing Surveys

- 8 Complete the Group Details, accept the defaults, except for "Who can view this group?"

Group details

Group name

Demo Vaccination Management Group WGR

Summary

Group that manages vaccination survey

Tags

Temp X Demo X Vaccinations X AGOL2 X

Add tags

Who can view this group?

☒ Only group members

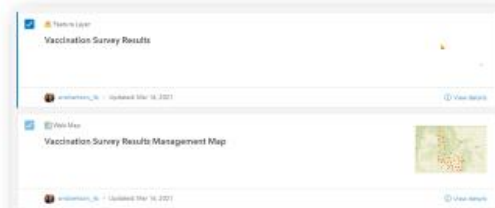
☐ People in the organization (State of Idaho)

☐ Everyone (public)

- 9 Click [Create group](#)

- 10 Click [Add items to group](#)

- 11 Add both the map and the layer you just saved:



- 12 Click [Add items](#)

7. Managing Surveys

- 13 Click [Create a web app](#)
- 14 Click on the Crowdsourcing Manager
- 15 Click on [CREATE WEB APP](#)
- 16 Complete the metadata and click Done

Create a web app

Title

Vaccination Crowdsourcing Manager

Tags

Vaccination X Survey X Results X

Summary (Optional)

Group that manages vaccination survey

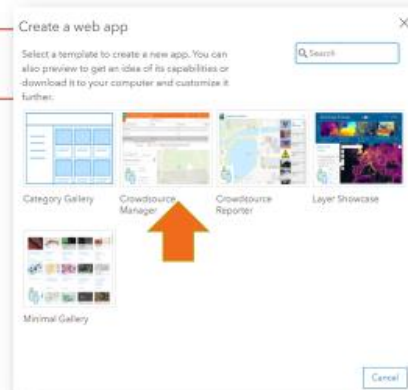
Categories

Vaccination X

Save in folder

ITS Data - Getting Started with ArcGIS Online Part 2

Next Done Cancel

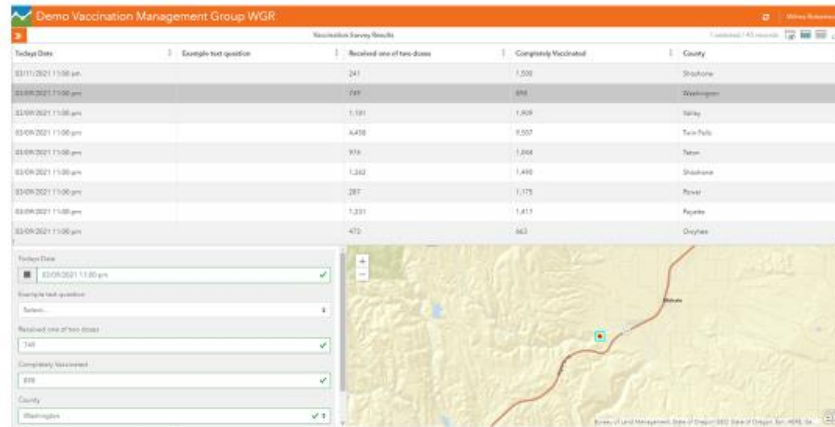


- 17 Accept all the defaults and click [Launch](#)

7. Managing Surveys

Part 1: Maps

- 18** Test out the new app. Click on any report and then on the pencil in the bottom left panel.



7. Managing Surveys

Part 1: Maps

- 19** To control which attributes are visible, and which ones can be edited go to back your Vaccination Survey Results Management Map (in a different tab)
- 20** Click on ... > Configure Pop-Up for the Vaccination Survey Results Layer
- 21** Click on [Configure Attributes](#)
- 22** Configure as shown on the right:

The 'Configure Attributes' dialog box allows users to check the fields they want to display and edit. It includes a table with columns for 'Field Name' and 'Field Alias'. The table lists several fields with checkboxes for 'Display' and 'Edit'.

Field Name	Field Alias
{County}	County
{RecordingDate}	Today's Date
{example1}	Example text question
{InProgress}	Received one of two doses
{Vaccinated}	Completely Vaccinated
{CreationDate}	CreationDate

7. Managing Surveys

- 23 Save your map
- 24 Go back to the tab with the Vaccine Manager App and refresh the page
- 25 What changed do you notice?

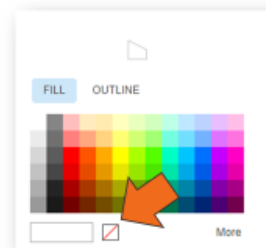
The screenshot shows a web application titled "Demo Vaccination Management Group WGR". It features a table with vaccination survey results and a map on the right.

Country	Today's Date	Resolved one of two doses	Completely Vaccinated
Shoshone	03/11/2021 11:00 am	241	1,100
Washington	03/09/2021 11:00 pm	349	896
Idaho	03/09/2021 11:00 pm	1,181	1,999
Twin Falls	03/09/2021 11:00 pm	4,408	9,587
Teton	03/09/2021 11:00 pm	974	1,084
Shoshone	03/09/2021 11:00 pm	1,262	1,486
Power	03/09/2021 11:00 pm	287	1,175
Payette	03/09/2021 11:00 pm	1,231	1,417
Clayton	03/09/2021 11:00 pm	473	443

Below the table, there are two input fields: "Resolved one of two doses" with a value of 241 and "Completely Vaccinated" with a value of 1,000. There are "Save" and "Cancel" buttons below these fields. To the right of the table is a map showing a geographical area with a blue background and a small red dot.

8. Basic Analyses

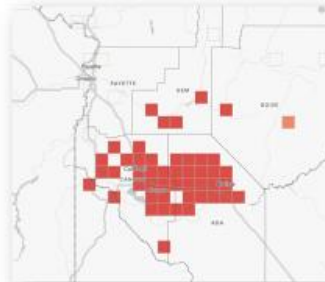
- 1 Return to your AGOL Pop-Up map that we worked on in the beginning of this class
- 2 We will do some analyses with the Public School and County layer
- 3 Clean up you map a bit by turning all layers off, except for the schools and the counties.
- 4 Symbolize the counties to show location only, and make set the fill to no color



8. Basic Analyses

5 Click on  Analysis

6 To create a "hot spot" map showing where the schools are in Idaho expand Analyze Patterns and choose Find Hot Spots



Find Hot Spots

- Choose layer for which hot spots will be calculated
Public Schools
- Find clusters of high and low
Point Counts
Count points within
Fishnet Grid
Define where points are possible
None
- Divide by (optional)
None
- Options
- Result layer name
Hot Spots Public Schools
Save result in ITS Class - Getting Started with A

☐ Use current map extent [Show credits](#)

RUN ANALYSIS

8. Basic Analyses

7 Next, we will get some statistics on how many schools you can find in a county

8 Click on Analyze and then expand Summarize Data

9 Click on Summarize Within

Perform Analysis

Summarize Data

- Aggregate Points
- Join Features
- Summarize Nearby
- Summarize Within
- Summarize Center and Dispersion

11 Summarize information from Public School layer

Summarize Within

- Choose an area layer to summarize other features within its boundaries
Choose the polygon layer
Counties_for_AGOL2_Class
- Choose a layer to summarize
Public Schools
- Add statistics from the
☒ Count of points
ENROLLM... Sum
FT_TEACHER Sum
Field Statistic

10 Pick the Counties layer

12 For each county get the number of schools (Count of points), as well as the total enrollment and number of full-time teachers

8. Basic Analyses

- 13 Uncheck "Use current map extent" but keep the other defaults.
- 14 Click RUN ANALYSIS
- 15 Open the table for the result layer:

Count of Points	Sum enrollment	Sum ft_teacher	NAME
137	71,005	-3,882	Ada
79	41,149	147	Canyon
50	23,851	235	Bonneville
48	20,586	-817	Kootenai
35	15,022	-250	Bannock
37	14,161	-2,133	Twin Falls
31	10,444	558	Bingham

4 Choose field to group by (optional)

Field

☐ Add minority, majority

☐ Add percentages

5 Result layer name

Summarize Public Schools within Counties_for_AG

Save result in ITS Class - Getting Started with

☐ Use current map extent

Show credits

RUN ANALYSIS

Note that the statistics have been added. Some numbers are skewed because missing information is listed as -999.

8. Routing

- 16 Save you map, and click on Add > Search for Layers > My Content
- 17 Do a search for ITS and add the district office layer you created earlier
- 18 We will create routes for visiting all ITD offices
- 19 Click on Analyze
- 20 Expand

My Content

ITD

2 layers

Idaho Department of Transportation District Offices

by wrobertson_its

Updated: 3/6/21

8. Routing

Part 1: Maps

21

The 'Plan Routes' interface is divided into two main panels. The left panel contains the following steps:

- 1 Choose point layer representing stops to visit:** A dropdown menu shows 'Idaho Department of Transportation ...'. Below it, text indicates 'Your layer has 9 stops. The current map extent shows 8 stops.'
- 2 Travel mode for routes:** A dropdown menu shows 'Driving Time' with a clock icon. Below it, a checkbox for 'Select barrier layers' is present.
- 3 Routes begin at stops:** A dropdown menu shows 'Add point to map' with a location pin icon. Below it, 'Start time for all routes' is set to '3/16/2021' at '11:01 AM'. Text below indicates 'Your layer has 1 starting locations. The current map extent shows 1 starting locations.'

The right panel contains the following steps:

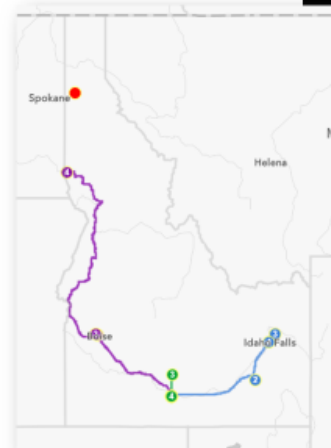
- 5 Maximum number of vehicles to route:** A dropdown menu shows '3 Vehicles'.
- 6 Maximum number of stops per vehicle:** A dropdown menu shows '5 Stops'. Text below indicates 'Your layer has 9 stops. The current map extent shows 8 stops.'
- 7 Time spent at each stop:** Two input fields show '10 min' and '0 sec'.
- 8 Limit the total route time per vehicle:** A checkbox is checked. Two input fields show '16 hr' and '0 min'.
- 9 Result layer name:** A text input field shows 'Routes to Idaho Department of Transportation Dist'.

At the bottom of the right panel, there are checkboxes for 'Include route layers' (unchecked) and 'Save result in' (set to 'ITS Class - Getting Started with...'). A checkbox for 'Use current map extent' is also present. A 'Show credits' link is at the bottom right. A blue 'RUN ANALYSIS' button is at the bottom center.

8. Routing



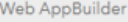
Part 1: Maps

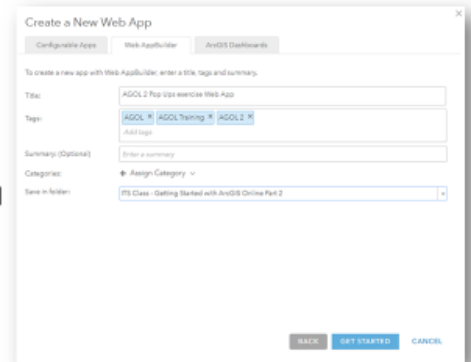
- 22 Open up the attribute tables and see what type of information is provided for the routes and the stops along the routes



9. App Templates




Part 1: Maps

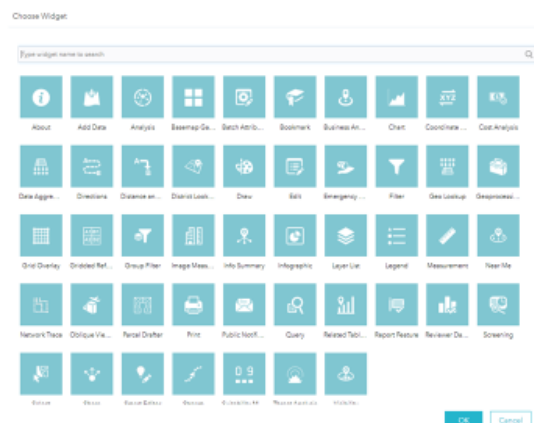
- 1 Save your map with the Public Schools, Routes and Counties
- 2 Click on  Share
- 3 Click on 
- 4 Notice the many different templates available to you
- 5 Click on 
- 6 Complete the Title, Tags, etc. for this App
- 7 Click GET STARTED



9. App Templates

Part 1: Maps

- 8 Pick the  Dashboard Theme
- 9 Along the top click on  Widget
- 10 Click on  to pick the first widget
- 11 Add a couple more widgets



9. App Templates

12 Pick the



Dashboard Theme

13 Along the top click on



Widget

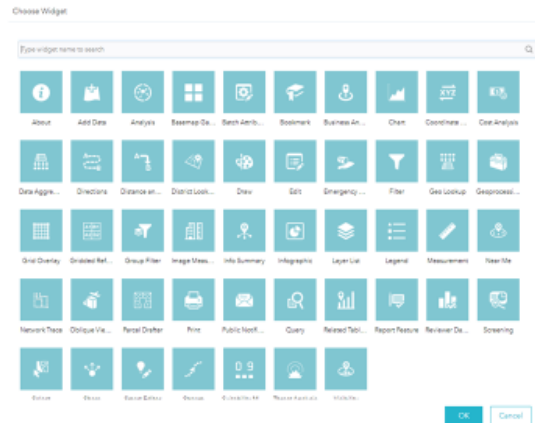
14 Click on



Widget

to pick the first widget

15 Add a couple more widgets



9. App Templates

16 Near the bottom left-hand corner, you see more widgets. Click on the first one

17 Select



Print

18 It is now added as a widget to your map

19 Click on **Modify layout** to modify the layout which will allow you to add, move and remove blocks

20 Click on **Save** and then on **Launch**

